

## RECENT LITERATURE

EDITED BY FRANK MCKINNEY

## BEHAVIOR

- ALTMANN, S. A. 1956. Avian mobbing behavior and predator recognition. *Condor*, **58**: 241-253.—The behavior of 39 species of wild birds was noted as they were exposed to different species of stuffed owls. Mobbing behavior was studied from the standpoint of previous contact of the species or individual with the predator. At least in the case of *Dendroica auduboni*, mobbing behavior is believed to be innate. Several pages tabulate individual responses of different species to different owls.—D. W. J.
- ANDREW, R. J. 1956. Territorial behaviour of the Yellowhammer, *Emberiza citrinella*, and Corn Bunting, *E. calandra*. *Ibis*, **98**: 502-505.—Little food-resource function is postulated for territory in these species. The major function seems to lie in the formation and maintenance of the pair-bond.—R. F. J.
- ARMSTRONG, E. A. 1954. The ecology of distraction display. *Brit. Journ. Animal Behaviour*, **2**: 121-135.—A detailed review of the literature on distraction display. "Principles correlating the incidence of distraction displays and the type of nesting habitat are formulated." Aspects of the adaptive value, evolution, and causation of these behavior patterns are discussed.—F. M.
- ARMSTRONG, E. A. 1956. Territory in the Wren, *Troglodytes troglodytes*. *Ibis*, **98**: 430-437.—"The natural conclusion is that territorialism is the stereotyped expression of . . . [threat and epigamic display], with reference, usually, to the site, actual or potential, of reproductive activity."
- BEACH, F. A. 1951. Effects of forebrain injury upon mating behavior in male pigeons. *Behaviour*, **4**: 36-59.—"It is suggested that the forebrain contributes to the male's sexual performance by maintaining a high level of responsiveness to sexual stimuli. Coitus may survive postoperatively if the operation is not too severe and if the individual was highly reactive before brain injury. Injections of androgen tend to increase sexual excitability and may therefore revive copulatory ability in brain-operated pigeons provided the preoperative responsiveness was high and the lesion not too extensive."
- BLANK, T. H., and J. S. ASH. 1956. The concept of territory in the Partridge *Perdix p. perdix*. *Ibis*, **98**: 379-389.—Concepts of classical territoriality do not apply to this species; covey territory, which travels with the birds and is not defended, and pair territory, which apparently occasionally is defended, are defined.—R. F. J.
- CONDER, P. J. 1956. The territory of the Wheatear, *Oenanthe oenanthe*. *Ibis*, **98**: 453-459.—Territory is held for life by pairs; size varies inversely with population density. The main function seems to be facilitation of breeding; territory as foraging ground is thought to be secondary.—R. F. J.
- DUNNETT, G. E., and R. A. HINDE. 1953. The winter roosting and awakening behaviour of captive Great Tits. *Brit. Journ. Animal Behaviour*, **1**: 91-95.—A comparison of the behavior of captive and wild birds throws light on the factors which influence time of roosting and awakening. The strength of the feeding and sex drives is shown to influence the daily rhythm.—F. M.
- DURANGO, S. 1956. Territory in the Red-backed Shrike, *Lanius collurio*. *Ibis*, **98**: 476-484.—Territory size is extremely variable, depending on population density. The function of territory seems to be primarily that of food reservation.—R. F. J.

- GIBB, J. 1956. Territory in the genus *Parus*. Ibis, **98**: 420-429.—A survey of territoriality in *Parus major*, *P. palustris*, *P. montanus*, *P. atricapillus*, and *P. inornatus*. Territorial behavior, functions and sizes of territories, and territory as a limit to density are discussed.—R. F. J.
- GIBB, J. 1956. Food, feeding habits and territory of the Rock Pipit, *Anthus spinoletta*. Ibis, **98**: 506-530.—Breeding density is 5 to 10 pairs per mile of coastline in Cornwall. Foraging areas in and above the intertidal zone are used varying through the year; 50 per cent of the records in December come from the intertidal. The most common winter foods are *Littorina neritoides*, chironomid and other dipterous larvae, and isopods (*Idotea*). Territories are held by pairs in the breeding season and by individuals in the winter. Breeding territoriality ceases in July and winter territories are established by September. The function of territory in winter seems to be for reservation of food; at this time it probably also limits density.—R. F. J.
- GOODWIN, D. 1952. A comparative study of the voice and some aspects of behaviour in two Old-World jays. Behaviour, **4**: 293-316.—*Garrulus glandarius* and *G. lanceolatus*.
- GUHL, A. M. 1956. The social order of chickens. Scientific American, **194** (2): 43-46.—A popular account.—J. C. H.
- HALE, W. G. 1956. The lack of territory in the Redshank, *Tringa totanus*. Ibis, **98**: 398-400.
- HINDE, R. A. 1956. The biological significance of the territories of birds. Ibis, **98**: 340-369.—A review of the literature and an introduction to a symposium on bird territory in the Ibis, vol. **98**, no. 3.—R. F. J.
- HOFFMANN, E. 1954. Black Terns at Big Muskegs. Passenger Pigeon, **16**: 3-8.—Behavior notes obtained during some 20 years of banding Black Terns on a Wisconsin lake.—R. W. N.
- LANYON, W. E. 1956. Territory in the meadowlarks, genus *Sturnella*. Ibis, **98**: 485-489.—The meadowlarks defend territory intraspecifically and between the two species. No difference can be detected in territorial behavior directed intraspecifically or interspecifically.—R. F. J.
- MARLER, P. 1956. Territory and individual distance in the Chaffinch, *Fringilla coelebs*. Ibis, **98**: 496-501.—Breeding territories are defended. Their function seems not related to food resource. Individual distance is a small area surrounding a bird and within which intruders are rarely tolerated; it may be an evolutionary forerunner of territory.—R. F. J.
- MARSHALL, A. J. 1956. Bower Birds. Scientific American, **194** (6): 48-52.—An account of the different types of bowers and the behavior of the two sexes as it relates to the bower.—J. C. H.
- MCCARTAN, L., and K. E. L. SIMMONS. 1956. Territory in the Great Crested Grebe *Podiceps cristatus* re-examined. Ibis, **98**: 370-378.—Main area of defense is immediately around the nest, but some additional open water may be defended; population density and ecological condition of the marsh probably determine what is defended.—R. F. J.
- MOUNTFORT, G. 1956. The territorial behaviour of the Hawfinch *Coccothraustes coccothraustes*. Ibis, **98**: 490-495.—Colonially breeding Hawfinches do not show classical territoriality, but the area within which breeding occurs is defended from presumed predators in unison by members. Solitary breeders show typical territoriality but hold only small areas in defense.—R. F. J.
- PETTERSSON, M. 1956. Diffusion of a new habit among greenfinches. Nature, **177**

- (4511): 709-710.—These finches strip the shrub, *Daphne mezereum*, in May and early June while the fruits are still green. The birds can crack the immature stone and devour the large seed. This new behavior seems to be increasing rapidly; 42 per cent of the known cases occurring within the last two seasons.—H. C. S.
- RADFORD, M. C. 1955. Nuthatch roosting times in relation to light as measured with a photometer. *British Birds*, 48: 71-74.—No relation between roosting time and light intensity or temperature could be found. Roosting was earlier in February and March than in November and December, as in Great Tits.—M. T. M.
- SABINE, W. S. 1956. Integrating mechanisms of winter flocks of Juncos. *Condor*, 58: 338-341.
- SIMMONS, K. E. L. 1952. The nature of the predator-reactions of breeding birds. *Behaviour*, 4: 161-171.—“It is maintained that the various reactions, except attack and fleeing themselves, are the outcome of the simultaneous activation of the antagonistic aggressive and escape drives at different levels of integration and threshold due to, among other factors, the stage of the breeding-cycle and the nature of the predator.” Displacement activities are discussed and most of the examples deal with shorebirds.—F. M.
- SIMMONS, K. E. L. 1954. The advertising behaviour of the Great Crested Grebe. *Bird Study*, 1: 53-56.—Apparently unmated birds and paired females (at least) give a special call usually when alone in the territory. Causation and function are discussed and comparisons are made with other species of birds.—F. M.
- SIMMONS, K. E. L. 1955. The Nature of “Anting.” *Letter*. *British Birds*, 48: 94-96.—A disagreement with Poulsen's theory which implies anting is primarily a form of feeding. However, many species never eat the ants and the behavior often involves the use of stereotyped patterns. Anting movements are modified preening movements just as dust-bathing movements are partially adapted water-bathing movements.—M. T. M.
- SIMMONS, K. E. L. 1956. Territory in the Little Ringed Plover, *Charadrius dubius*. *Ibis*, 98: 390-397.—Territory is defended in these plovers against their own species and also against *C. hiaticula* and *C. alexandrinus*. The function of this is postulated as spacing of the nests of the three species so that large-scale egg-nestling predation is unlikely.—R. F. J.
- SNOW, D. W. 1956. Territory in the Blackbird *Turdus merula*. *Ibis*, 98: 438-447.—Average size of territories is 0.4-0.6 acres; suitable cover for the nest seems to be the main requisite of a territory. Old males hold territory through the year and young males assume territories in their first fall, although these are not fully established until the beginning of the next breeding season. The function of territory seems to be related chiefly to efficiency in breeding and not with food-getting.—R. F. J.
- STEVEN, D. M. 1955. Transference of “imprinting” in a wild gosling. *Brit. Journ. Animal Behaviour*, 3: 14-16.—A wild *Anser erythropus* gosling, between one and two weeks old, was captured in Norway. Within one week, the gosling had become imprinted on its four human captors. The transference of imprinting from the parent geese is thought to be correlated with habituation as seen in the gradual disappearance of fear.—F. M.
- SWANBERG, P. O. 1956. Territory in the Thick-billed Nutcracker *Nucifraga caryocatactes*. *Ibis*, 98: 412-419.—Territory is held throughout the year and for the length of life of the individual. All activities (foraging, food storage, singing,

- and nesting) take place in territories; these average 32.7 acres in size in Sweden.—R. F. J.
- TINBERGEN, N. 1956. On the functions of territory in gulls. *Ibis*, **98**: 401–411.—The species studied were *Rissa tridactyla*, *Larus ridibundus*, and *L. argentatus*. Territory is taken to involve both site attachment and hostility, and eight functions of territory provisionally are presented within this context.—R. F. J.
- TOWE, A. L. 1956. Efficacy of striatal shocks in avian conditioned behaviors. *Science*, **123** (3204): 936–937.—Stimulation of the neostriatum intermediale of the pigeon was used successfully to condition one individual to flex its leg.—J. C. H.
- VON HAARTMAN, L. 1956. Territory in the Pied Flycatcher, *Muscicapa hypoleuca*. *Ibis*, **98**: 460–475.—Territorial behavior arises after males find nesting-holes. Since it is chiefly the nest-hole that is defended, territories are small and density is limited by the number of nest-holes. Most males have more than one territory and it is these males that can be polygynous.—R. F. J.
- YOUNG, H. 1956. Territorial activities of the American Robin *Turdus migratorius*. *Ibis*, **98**: 448–452.—A condensation of the author's earlier (1951) published work.

## DISEASES AND PARASITES

- CARRIKER, M. A., JR. 1954. The Menoponidae of the Cracidae and the genus *Odontophorus*. (Neotropical Mallophaga Miscellany No. 8). *Noved. Colombianas*, no. **1**: 19–31. Univ. del Cauca, Popayan.—Describes two new genera, a new species, a new subspecies, and provides three new names in substitution for those preoccupied, for certain bird-lice.—E. E.
- EADS, R. B. 1956. Ectoparasites from swallow nests, with the description of a new ceratophyllid flea. *Journ. Parasit.*, **42**: 73–76.—A mite, a flea, and a tick were common on nests of *Petrochelidon fulva* in central Texas caves; the tick was also found on Common Cliff Swallow nests on buildings.—J. D. W.
- FARR, M. M. 1954. Renal coccidiosis of Canada Geese. *Journ. Parasit.*, **40** (5, Sect. 2): 46.—A common pathogenic parasite and, probably, mortality factor.—J. D. W.
- GROUPÉ, V., F. J. RAUSCHER, and W. R. BRYAN. 1956. Suppression and modification of virus-induced Rous sarcoma in chicks by xerosin. *Science*, **123** (3207): 1073–1074.
- HUGHGINS, E. J. 1956. Ecological studies on a trematode of bullheads and cormorants at Spring Lake, Illinois. *Trans. Amer. Micr. Soc.*, **75**: 281–289.
- JUNGHERR, E., F. SUMMER, and R. E. LUGINBUHL. 1956. Pathology of egg-adapted avian encephalomyelitis. *Science*, **124** (3211): 80–81.
- KISSLING, R. E., R. W. CHAMBERLAIN, D. B. NELSON, and D. B. STAMM. 1955. Studies on the North American Arthropod-borne encephalitides. VIII. Equine encephalitis in Louisiana. *Amer. Journ. Hygiene*, **62**: 233–254, 1 fig.—Near Ponchatoula, Tangipahoa Parish, southern Louisiana, blood (cardiac) samples from 1421 birds of 104 species were collected from April, 1952, through June, 1953. Virus of eastern equine encephalitis was isolated in single specimens of Catbird, Cardinal, and Hermit Thrush; antibody was found in from 7.4 to 22.7 per cent of all of the birds examined, varying according to the seven areas from which samples were obtained. Virus of western equine encephalitis was found in one Loggerhead Shrike, one Carolina Chickadee, and one Cardinal, with antibody in 2.8 to 27.2 per cent of the remainder. Migrant birds that go into the tropics in winter appear to have a higher antibody rate than species resident in Louisiana.

- MACY, R. W., D. J. MOORE, and W. S. PRICE. 1955. Studies on dermatitis-producing schistosomes in the Pacific Northwest, with special reference to *Trichobilharzia oregonensis*. Trans. Amer. Micro. Soc., **74**: 235-251.—Cercariae of two species of flukes, found in ducks and geese, commonly cause swimmers' itch; life cycle of one experimentally demonstrated.—J. D. W.
- ORMEÑO, B. E. P. 1953. *Phalacrocorax bougainvilli*, "Guanay," un nuevo huesped para *Cyathostoma sphenisci* Baudet. Pub. Mus. Hist. Nat. "Javier Prado," Ser. A. Zool., no. **14**, 6 pp., 1 pl.—*P. bougainvilli* is a new host for the nematode, *C. sphenisci*.—M. A. T.
- ROBINSON, E. J. 1955. Observations on the epizootiology of filarial infections in two species of the avian family Corvidae. Journ. Parasit., **41**: 209-214.—Vector of two species of filerine, in Crows and Blue Jays, apparently *Culicoides*, with transmission during nest life.—J. D. W.
- SAUNDERS, D. C. 1955. The classification of microfilariae in birds. *Avifilaris tyrannidarum* and *A. fringillidarum*, two new species. Trans. Amer. Micro. Soc., **74**: 37-45.—Heart blood of 1600 birds of many species from Mexico examined for microfilariae; 21 host species infected.—J. D. W.
- SCHILLER, E. L. 1955. Some cestode parasites of the Old Squaw, *Clangula hyemalis* (L.). Proc. Helm. Soc. Wash., **22**: 41.—Five species recorded in arctic Alaska.
- SCHILLER, E. L. 1955. Studies on the helminth fauna of Alaska. XXIII. Some cestode parasites of Eider Ducks. Journ. Parasit., **41**: 79-88.—Many Steller's, Pacific, King, and Spectacled eiders examined. Thirteen species reported, of which two described as new and four redescribed.—J. D. W.
- SPRENT, J. F. A. 1954. The life cycles of nematodes in the family Ascarididae Blanchard, 1896. Journ. Parasit., **40**: 608-617.—Phylogeny with respect to life cycles discussed; bird parasites have an intermediate host (fish, tadpoles, earthworms, shrews, moles, hedgehogs) which must be eaten by the final host (cormorants, ducks, herons, hawks, owls).—J. D. W.
- TATE, P. 1954. Notes upon the biology and morphology of the immature stages of *Neottiophilum praeustum* (Meigen, 1826) (Diptera: Neottiophilidae) parasitic on birds. Parasitology, **44**: 111-119.—Maggots are blood suckers in nests of fringillids; heavy infestations cause mortality.—J. D. W.
- WEBSTER, J. D. 1955. Three new forms of *Aploparaksis* (Cestoda: Hymenolepididae). Trans. Amer. Micro. Soc., **74**: 45-51.—From Red-backed Sandpiper in Alaska and Varied Thrush, locality unknown.

## DISTRIBUTION

- BAILEY, A. M. 1955. Birds of New Zealand. Mus. Pictorial (Denver Mus. Nat. Hist.) **11**, 116 pp. (Price, \$1.50).—This publication includes the narrative of the author's visit to New Zealand and a brief systematic account of the remarkable avifauna of New Zealand. The 82 excellent photographs, most of them by the author and Kenneth V. Bigwood, are the major contribution of this publication, which will also serve as a good introduction to the birds of the area.—R. W. S.
- BAILEY, A. M. 1956. Birds of Midway and Laysan Islands. Mus. Pictorial (Denver Mus. Nat. Hist.) **12**, 130 pp. (Price, \$2.00).—An important review of our knowledge of the birds of these islands, beautifully illustrated by photographs and a colored plate of the extinct Laysan Honey-eater (*Himatione sanguinea fraillhi*). A bibliography, a list of plants, and a history of the islands add to its usefulness.—R. W. S.

- BARD, F. G. 1956. Whooping Cranes in southern Saskatchewan in 1956. *Blue Jay*, **14**: 81.—Four Whooping Cranes were photographed, 2 in June, 2 in July.—R. W. N.
- BARD, F. G. 1956. Whooping Cranes in migration, 1956. *Blue Jay*, **14**: 39–42.—A report of observations of two families of Whooping Cranes in late April in Saskatchewan, documented by photographs. Includes a description of the break-up of the family. Previous positive records in Saskatchewan are shown on a map.—R. W. N.
- BELL, L. C. 1955. Notes on the birds of the Chatham Islands. *Notornis*, **6**: 65–68.—47 native and introduced species. Population numbers of albatrosses.—W. R. B. O.
- BORRERO, J. I., and A. OLIVARES. 1955. Avifauna de la region de Soatá, Departamento de Boyacá, Colombia. *Caldasia*, **7** (31): 51–81.—A collection of 118 species from the slope of the Eastern Andes. *Dendroica magnolia* and *Seiurus noveboracensis limnaeus* (identified by J. T. Zimmer) recorded for first time in Colombia.—E. E.
- CARRIKER, M. A., JR. 1954. Additions to the avifauna of Colombia. *Noved. Colombianas*, no. **1**: 14–19. Univ. del Cauca, Popayan.—A list of species and subspecies new to Colombia collected by the author, giving details as to locality and present location of the specimens. Some of these specimens have been previously reported. *Passerina cyanea* (the first South American specimens), *Cypseloides fumigatus* [Might this be the recently described *C. cryptus* Zimmer? E. E.] and *Alopochelidon fucata* (a swallow of southern South America, probably a migrant) and the furnariid *Phacellodomus rufifrons* new to Colombia.—E. E.
- CHISLETT, R. 1955. Stilt Sandpiper in Yorkshire: A new British Bird. *British Birds*, **48**: 18–20.—A Yorkshire record of *Micropalama himantopus* on 31 August 1954.—M. T. M.
- DUGAND, A. 1955. Nuevas observaciones de *Bubulcus ibis ibis* en Colombia. *Caldasia*, **7** (31): 83–86.—Notes on distribution and behavior of the Cattle Egret in Colombia.
- GULLION, G. W., and L. W. HOSKINS. 1956. Noteworthy bird records from northeastern Nevada. *Condor*, **58**: 295.—Recent records include those for *Poliophtila caerulea* and *Lanius excubitor*.
- HAMILTON, F. D., and K. S. MACGREGOR. 1955. Wilson's Phalarope in Fife: A new British Bird. *British Birds*, **48**: 15–17.—A Scottish record of *Steganopus tricolor*. Three earlier records are mentioned, from 11 September to 5 October 1954.—M. T. M.
- HOUSTON S., and M. HOUSTON. 1955. Following Congdon—53 years later. *Blue Jay*, **13**: 18–19.—A list of species seen in 1955 is compared with a list compiled for the same area in northern Saskatchewan in 1902.—R. W. N.
- MARCHANT, S. 1956. Occurrence of the Piping Plover, *Charadrius melodus*, in Ecuador. *Ibis*, **98**: 533–534.—♀ imm., Salinas, Guaycas Province, October 15, 1955.
- MURIE, A. 1956. Nesting records of the Arctic Willow Warbler in Mount McKinley National Park, Alaska. *Condor*, **58**: 292–293.—Although previously known as a common summer resident in the park, the first nest of *Acanthopneuste borealis kennicotti* in North America is described.—D. W. J.
- MURPHY, R. C., A. M. BAILEY, and R. J. NIEDRACH. 1954. Canton Island. *Mus. Pictorial* (Denver Mus. Nat. Hist.) **10**, 80 pp. (Price, \$1.00).—A brief history of the island and bibliography (compiled by E. H. Bryan, Jr.) round out

- the account of the 28 species of water birds which have been recorded from this atoll. Illustrated by many excellent photographs, mostly by Alfred M. Bailey and Patricia Bailey Witherspoon.—R. W. S.
- NICÉFORO MARIA, H. 1955. Una cracida nueva para la avifauna colombiana. *Caldasia*, **7** (32): 177-184.—The Helmeted Curassow, *Pauxi pauxi pauxi*, in Colombia.—E. E.
- NICÉFORO MARIA, H. 1955. Notas sobre aves de Colombia, IV. *Caldasia*, **7** (32): 173-175.—In Colombia, first *Bubulcus ibis* was taken March 20, 1949. The tanager, *Anisognathus lachrymosus tamae*, new to Colombia.—E. E.
- ORIAN, G. 1954. The Red-tailed Hawk in Wisconsin. *Passenger Pigeon*, **17**: 3-10.—Range and population data based on questionnaires and other sources.—R. W. N.
- PHILIPPI B., R. A. 1951. Observaciones sobre aves Norteamericanas migratorias que visitan Chile. *Bol. Mus. Nac. Hist. Nat. (Santiago, Chile)* **25**: 79-84.—New or rare North American migrants to Chile.—M. A. T.
- PHILIPPI B., R. A., A. W. JOHNSON, J. D. GOODALL, y F. BEHN. 1954. Notas sobre aves de Magallanes y Tierra del Fuego. *Bol. Mus. Nac. Hist. Nat. (Santiago, Chile)* **24**, no. 3, 53 pp., 8 figs.—An annotated list of the birds of Magallanes and Tierra del Fuego with observations and life history notes.—M. A. T.
- RIPLEY, S. D., and D. S. RABOR. 1956. Birds from Canlaon Volcano in the highlands of Negros Island in the Philippines. *Condor*, **58**: 283-291.—Following geographic and geologic descriptions of the island, three vegetation (altitudinal) zones are listed, and for each zone the typical bird species occurring therein are mentioned. Sections deal with breeding activity from April 11 through May 21, mixed avian flocks, and call notes. Systematic notes include the description of a new subspecies, *Zosterops montana finitima*.—D. W. J.
- SCHORGER, A. W. 1954. The White Pelican in early Wisconsin. *Passenger Pigeon*, **16**: 136-140.—Compilation of historical records; includes data on migration.—R. W. N.
- STEPHENS, T. C., W. G. YOUNGWORTH, and W. R. FELTON, JR. 1955. The birds of Union County, South Dakota. *Occasional papers, no. 1*, Nebraska Ornithologists' Union, Crete, Nebraska. 35 pp. (Price \$0.75.)
- STEPHENS, T. C. 1956. An annotated Bibliography of North Dakota Ornithology. *Occasional papers, no. 2*, Nebraska Ornithologists' Union, Crete, Nebraska. 22 pp. (Price \$1.00.)
- STIDOLPH, R. H. D. 1952. White-faced Herons in New Zealand. *Notornis*, **5**: 18-19.—*Notophox novaehollandiae* has shown a remarkable increase in numbers during the last ten years. First published account of its breeding in New Zealand, Shag Valley, 1941, by B. A. Ellis.—W. R. B. O.
- STIDOLPH, R. H. D. 1953. New wader for New Zealand—Least Sandpiper. *Notornis*, **5**: 115.—*Erolia minutilla*, Wairoa River mouth, Hawke's Bay, Nov. 21, 1952. Subspecies *subminuta* more likely than *E. m. minutilla* to reach New Zealand.—W. R. B. O.
- STIDOLPH, R. H. D. 1954. Status of Godwit in New Zealand. *Notornis*, **6**: 31-39.—The author suggests that the summer population of *Limosa lapponica baueri* in New Zealand does not exceed 200,000. The migratory route between Siberia and New Zealand is considered to be in a much more direct line than has been accepted and is not by way of the Malay Peninsula.—W. R. B. O.
- SUTTON, G. M., and D. F. PARMELEE. 1955. On certain Anatids of Frobisher Bay, Baffin Island. *Arctic*, **8**: 139-147.—Notes on *Branta canadensis*, *Chen*

- hyperborea*, *Chen caerulescens*, *Clangula hyemalis*, *Somateria mollissima*, *S. spectabilis*, and *Mergus serrator*.—F. M.
- TORDOFF, H. B. 1956. Check-list of the Birds of Kansas. Univ. Kansas Publ., Mus. Nat. Hist., 8: 307-359.—An annotated list of 390 species (15 of which are on a hypothetical list) bringing up to date the records for the distribution of birds in Kansas. The birds are listed by species, with comments on the subspecies found in the state at the end of the species accounts; birds on the hypothetical list are placed in brackets in their place in the regular list. These two departures from the more conventional lists are improvements which could be copied to advantage by other authors.—R. W. S.
- TURBOTT, E. G. 1956. Bulbuls in Auckland. Notornis, 6: 185-193.—The history of establishment of *Pycnonotus cafer* in the vicinity of Auckland. It is possible that the birds were brought from some eastern port, apparently in 1952.—W. R. B. O.
- WESTERSKOV, K. 1954. Spread of the Australian Magpie within the Rotorua Acclimatization district. Notornis, 5: 243-248.—*Gymnorhina hypoleuca* and *G. tibicen* seem to thrive in sheep country, where most of their requirements are satisfied.—W. R. B. O.

#### ECOLOGY AND POPULATION

- GIBB, J. 1954. Population changes of Titmice, 1947-1951. Bird Study, 1: 40-48.—In Marley Wood, Wytham, near Oxford.
- HOFFMANN, R. S. 1956. Observations on a Sooty Grouse population at Sage Hen Creek, California. Condor, 58: 321-337.—By observation of a semi-isolated Sooty Grouse population, information is brought to bear on recent taxonomic and cyclic problems in grouse. Differences in courtship behavior, displays, and territoriality are indicated for the Dusky Grouse (*obscurus* group) and Sooty Grouse (*fuliginosus* group). Historical evidence for cycles in Blue Grouse (*obscurus* group) is reviewed, and the evidence accruing therefrom is regarded as incomplete. Data are presented to show that both Sooty Grouse and Snowshoe Hare populations declined sharply from 1952 to 1953. Perhaps this decline is of the same nature as has been found in the proposed cycles in the *obscurus* group.—D. W. J.
- HORVÁTH, L. 1956. Communities of breeding birds in Hungary. Acta Zool. Acad. Scient. Hungaricae, 2, fasc. 4: 319-331, 1 fig. (In English, summary in Russian.)—The 192 species known to breed in Hungary are classified in 38 groups, containing from 3 to 19 species with an average of 5 in each, that nest in the same general type of habitat.
- JOHNSTON, R. F. 1956. Population structure in salt marsh Song Sparrows. Parts I and II. Condor, 58: 24-44; 254-272.—This significant investigation involves a study of a color-banded population of *Melospiza melodia samuelis* over a period of five years. The factors which influence the initiation of breeding are photoperiod, temperature, and rainfall. The salt marsh forms breed earlier than upland forms at the same latitude as an adaptation to escape high tides. Clutch-size is determined by the quantity and quality of food, population density, and mortality rates. Other data are presented on territoriality and dispersal of juveniles and adults.

In some years the density was 10 pairs per acre, this density varying directly with the preceding year's productivity. Natality and mortality rates and a life table are given. This distinct population of Song Sparrows is maintained by habitat selection, a high density, and strong isolation.—D. W. J.



- KOEPKE, M. 1954. Corte ecológico transversal en los Andes del Perú central con especial consideración de las aves. Parte I: Costa, vertientes occidentales y región altoandina. Mem. Mus. Hist. Nat. Javier Prado, No. 3: 1-119. Univ. Nac. Mayor de San Marcos, Lima.—An ecologic study, with special reference to birds, of a transect of central Peru from the coast to the Andean summits. Describes the various habitats with lists of the birds found in each, and discusses adaptations to varying conditions. Photographs, drawings and diagrams. Should be useful to students of neotropical bird distribution and visitors to Peru. (In Spanish, with German summary.)—E. E.
- ORIAN, G., and F. KUHLMAN. 1956. Red-tailed Hawk and Horned Owl populations in Wisconsin. Condor, 58: 371-385.—On a 95-square-mile farm tract, the authors studied interactions between *Buteo jamaicensis* and *Bubo virginianus* for three years. For both species there is a discussion of winter and breeding populations, nests, and food. These two predators competed for food (pheasants and cottontail rabbits) and nest sites. Emphasis is given to the study of taxonomically unrelated species in order to elucidate interactions of animal populations.—D. W. J.
- PLATT, D. 1956. Food of the Crow, *Corvus brachyrhynchos* Brehm, in South-central Kansas. Univ. Kansas Publ., Mus. Nat. Hist., 8: 477-498.—Analysis of 617 regurgitated pellets collected throughout the year showed 69 per cent plant material, mostly wheat and other grains. The author believes that the Crow, being euryphagous, exerts a stabilizing influence on many kinds of prey and on the biotic community as a whole.—R. W. S.
- SCHORGER, A. W. 1954. A study of road kills. Passenger Pigeon, 16: 53-55.—Records of birds killed on a 70-mile stretch of road over 18 consecutive years.—R. W. N.

## EVOLUTION AND GENETICS

- IRWIN, M. R. 1955. On interrelationships of the cellular antigens of several species of *Streptopelia*. Evolution, 9: 261-279.—On the basis of antigenic substances the eight species are assigned to three fairly well-defined groups.—J. C. H.
- JONES, D. G., and W. MORGAN. 1956. Woolly feathering in the fowl. Journ. Heredity, 47 (3): 137-141.
- LANDAUER, W. 1956. A second diploped mutation of the fowl. Journ. Heredity, 47 (2): 57-63.—The new mutant occurred in Black Minorca fowl and was very similar to a diploped mutation earlier reported in White Leghorn fowl. These two mutants are non-allelic.—J. C. H.
- LORENZ, F. W., V. S. ASMUNDSON, and N. E. WILSON. 1956. Turkey hybrids. Journ. Heredity, 47 (3): 142-146.—Fertilizing female domesticated turkeys (*Meleagris gallopavo*) with sperm obtained from a male Ocellated Turkey (*Agriocharis ocellata*) resulted in fair to good fertility, with a hatch of fertile eggs comparable to that of eggs from domestic turkeys, good post-hatching viability at least in males, and the production of fertile hybrids. The F<sub>1</sub> progeny are intermediate in all traits observed except the voice, which is similar to that of *ocellata*.—J. C. H.
- MAKINO, S., T. UDAGAWA, and Y. YAMASHINA. 1956. Karyotype studies in birds. 2: a comparative study of chromosomes in the *Columbidae*. Caryologia, 8: 275-293.—Studies on the chromosomes of *Columba livia*, *C. janthina*, *Streptopelia decaocto*, *S. orientalis*, *S. decaocto* × *orientalis*, and *Sphenurus sieboldii*.—R. W. S.
- MILLER, A. H. 1955. A hybrid woodpecker and its significance in speciation

- in the genus *Dendrocopos*. *Evolution*, **9**: 317-321.—A female specimen intermediate in a number of characters between *D. villosus* and *D. scalaris* was taken in Coahuila, Mexico, in April. It is thought to have been an F<sub>1</sub> hybrid. In general the cross-banded feather patterns of the back and tail of *scalaris* dominate. On the other hand, restriction or elimination of the white on the lateral aspects of the back and especially on the wing coverts shows dominance, partial to complete, of the *villosus* characters. This hybrid bears a strong resemblance to *D. borealis* of the south-eastern United States. It is suggested that *borealis* may have an evolutionary history of hybridization and introgression.—J. C. H. MILLER, W. J. 1956. Silky plumage in the Ring Neck Dove. *Journ Heredity*, **47** (1): 37-40.
- SIBLEY, C. G. 1956. A white-throated Golden-crowned Sparrow. *Condor*, **58**: 294-295.—A specimen of *Zonotrichia atricapilla* with a white throat is described, and the possible origin of this condition is discussed.—D. W. J.
- UDAGAWA, T. 1955. Karyogram studies in birds. VI. The chromosomes of five species of the Turdidae. *Annot. Zool. Jap.*, **28**: 256-261.—*Turdus pallidus*, *T. c. celaenops*, *Monticola solitarius magnus*, *Phoenicurus a. aureus*, and *Erithacus c. cyane*.—R. W. S.
- WALLACE, G. J. 1956. A case of microphthalmia in the American Robin. *Wilson Bull.*, **68**: 151-152.—In a fledgling *Turdus migratorius*.
- YAMASHINA, Y. 1953. Phenotypical differentiation of endemic birds in relation to island size in Micronesia. *Proc. VII Pac. Sci. Congr.*, **4**: 61-66.—Geological period of emergence of the islands. The major determinants of differentiation are the number of generations, size of population, and degree of selection.—W. R. B. O.

## GENERAL BIOLOGY

- BAILEY, A. M. 1952. Laysan and Black-footed Albatrosses. *Mus. Pictorial (Denver Mus. Nat. Hist.)* **6**, 80 pp. (Price, \$1.00).—A valuable account of the habits of *Diomedea immutabilis* and *D. nigripes*, based on original observations as well as those reported in the literature. The 42 photographs of these birds are outstanding and include series of illustrations of the "dance" of both species.—R. W. S.
- BETTS, M. M. 1955. The behaviour of a pair of Great Tits at the nest. *British Birds*, **48**: 77-82.—The rate of feeding of a brood of Great Tits by the parents reached a peak on the eleventh day, but the size of each food item continued to increase. In 22 per cent of all visits two or more items were brought together. The use of recorders of visiting frequencies thus fails to give a completely accurate picture of feeding activity. The male's share in feeding decreased steadily during the nestling period. Day brooding by the female ceased after the seventh morning. There are notes on nest sanitation, and on awakening and roosting.—M. T. M.
- BLAKE, E. R. 1956. A collection of Panamanian nests and eggs. *Condor*, **58**: 386-388.—Descriptions are given for sixteen species of noteworthy interest.—D. W. J.
- BRADSHAW, F. 1956. The home of the Whooping Crane. *Blue Jay*, **14**: 76-78.—A personal account of the discovery of a Whooping Crane nest in Saskatchewan on May 29, 1922.—R. W. N.
- GIBB, J. 1955. Feeding Rates of Great Tits. *British Birds*, **48**: 49-58.—Part of a major study of *Parus major*. A mechanical recorder, of the time of parental visits to the nest, is explained and illustrated. Of weather conditions only heavy

- rain reduced feeding rate. Nestlings in smaller broods receive more food than those in larger broods. Late broods have fewer young than first broods. Young in late broods had a lower individual average weight than young in large first broods. Many of the young in late broods died at about 15 days of age. In large first broods and in late broods, the total number of visits decreased in the afternoon and in the later stages of the nestling period. It is concluded the parents were more strained in these cases than they were if they had small first broods.—M. T. M.
- HAVERSCHMIDT, F. 1956. Notes on a nest of the Guianan Chachalaca. *Condor*, **58**: 293-294.—*Ortalis motmot* in Surinam.
- LANYON, W. E. 1953. Meadowlarks in Wisconsin. *Passenger Pigeon*, **15**: 99-112, 150-158.—Part 1. Historical and ecological aspects of Meadowlark distribution based on questionnaires and field notes from many persons and on personal research. Part 2. Wintering, migration, song, and breeding biology in Wisconsin.—R. W. N.
- SELBY, G., and J. A. SELBY. 1955. Ruby-throated Hummingbirds at Lookout Point. *Bull. Federation of Ontario Naturalists*, **70**: 9-20.—Observations on behavior and breeding biology. Three types of display flights are distinguished.—F. M.
- SUTTON, G. M., and D. F. PARMELEE. 1956. Breeding of the Snowy Owl in southeastern Baffin Island. *Condor*, **58**: 273-282.—Ten nestings of *Nyctea scandiaca* in 1953 showed clutch-size to vary between 2 and 10, and that 62 chicks were hatched from 69 eggs: Territories covered about a mile in diameter, these being defended, at times, by both sexes. In a nest containing nine eggs, hatching was spread over a period of about 15 days. The natal plumage is described. Lemmings were the exclusive food.—D. W. J.

#### MANAGEMENT AND CONSERVATION

- ANDERSON, W. 1956. A waterfowl nesting study on the Grasslands, Merced County, California. *Calif. Fish and Game*, **42**: 117-130.—Excessive predation by mammals (mostly skunk and opossum) accounted for the loss of 61.7 per cent of duck nests in 1953 and 82 per cent in 1954. Photography was used to confirm the identity of predators; a wire connected the camera shutter with the eggs so that the predator photographed itself.—F. M.
- ANON. 1954. The New Protection of Birds Act. *British Birds* (Editorial), **47**: 409-413.—The old law relating to bird protection in Great Britain was highly confused and conditions varied from county to county. The long-needed revision was finally passed in 1954 (Protection of Birds Act, 1954) and involved the total repealing of 15 earlier Acts. All birds and their nests are now protected throughout England, Wales and Scotland unless they appear in the brief lists of species variously excepted.—M. T. M.
- CARRICK, R. 1956. The Little Corella, *Kakatoe sanguinea* G., and rice cultivation in the Kimberley region, W. A. C.S.I.R.O. *Wildlife Research*, **1**: 69-71.
- GENELLY, R. E., and R. L. RUDD. 1956. Chronic toxicity of DDT, Toxaphene, and Dieldrin to Ring-necked Pheasants. *Calif. Fish and Game*, **42**: 5-14.
- HUNT, E. G., and A. E. NAYLOR. 1955. Nesting studies of ducks and coots in Honey Lake Valley. *Calif. Fish and Game*, **41**: 295-314.—Studies in Lassen County, in 1951 and 1953, provide detailed data on nest sites and preferred cover types, nesting periods, and the fate of nests and broods for eight duck species and the coot. The nesting success was about 50 per cent for ducks and 96 per

- cent for coots. Predation was the most important cause of unsuccessful nesting.—F. M.
- LASSEN, R. W., K. E. DOTY, and R. D. SAUCERMAN. 1955. Sexing day-old Ring-necked Pheasant chicks by a color characteristic. *Calif. Fish and Game*, **41**: 229-231.
- MACGREGOR, W. G., and W. M. SMITH. 1955. Nesting and reproduction of the Band-tailed Pigeon in California. *Calif. Fish and Game*, **41**: 315-326.—A study in Monterey County gives data on 26 nests. "In all but one nest, clutch size was one egg. Nesting occurred as early as February and as late as October. Observations on a single pair of birds revealed three broods successfully fledged during the 1954 nesting season." Hunting seasons have been adjusted to protect the late-nesting birds.—F. M.
- NORRIS, R. A. 1956. Introduction of exotic game birds in Georgia. *Oriole*, **21**: 1-6.
- SCOTT, W. E. 1955. The management of predacious and fish-eating birds in Wisconsin. *Passenger Pigeon*, **17**: 51-58.—Statement of the present management problem as viewed by members of Wisconsin Conservation Department.—R. W. N.
- WESTERSKOV, K. 1953. Pheasant banding in New Zealand, 1948-51. *Notornis*, **5**: 157-164.—The recovery of only 3.4 per cent of pen-reared birds indicates a very low survival rate.—W. R. B. O.

#### MIGRATION AND ORIENTATION

- ALEXANDER, W. B., and R. S. R. FITTER. 1955. American Land Birds in Western Europe. *British Birds*, **48**: 1-14.—An important review of 38 species of North American land birds which may be considered acceptable as naturally occurring vagrants in Europe. Williamson (1954) stated that "speed is the *sine qua non* of a successful transatlantic crossing, and it is very doubtful if any small or medium-sized Passerine or wader could make it other than by a continuous downwind drift in the strong westerly airstream of a vast Atlantic low." Birds traveling on a ship (a common explanation in the past of such vagrant records) would lose weight too rapidly to survive. Again, 103 land bird records and 203 wading bird records are grouped according to month of occurrence, and the majority occurred in the spring or fall; "what cannot be accepted is that birds tend to escape (from captivity) more at the normal migration periods than at other times of year." A systematic list of species with claims to European status is included.—M. T. M.
- BAGG, A. M. 1955. Airborne from Gulf to Gulf. *Bull. Mass. Aud. Soc.*, **39**: 106-110, 159-168.—Simultaneous observations in eastern North America show how a strong flow of tropical air from the Gulf of Mexico carried migrant Indigo Buntings from Central America to the Gulf coast of Florida and coastal areas from Long Island to Nova Scotia during the period April 16 to 18, 1954.—F. M.
- CARRICK, R. 1956. The Australian bird-banding scheme. *C.S.I.R.O. Wildlife Research*, **1**: 26-30.—A national scheme was launched in 1953 by the Wildlife Survey Section, C.S.I.R.O., with headquarters at Canberra.
- CARRICK, R., and N. TURNBULL. First annual report of the Australian bird-banding scheme, October 1953 to June 1955. *C.S.I.R.O. Wildlife Research*, **1**: 31-39.
- CORNWALLIS, R. K. 1954. The Pattern of Migration in 1953 at the East Coast Bird Observatories. *British Birds*, **47**: 423-431.—A chronological description of the spring and fall migration of 1953 on the east coast of England and Scotland.

- There were few drift migrants in the spring. No hold-up of migration occurred in the fall, to be released later as coincident peaks at the various observatories. Drift migrants did however usually coincide at several stations.—M. T. M.
- DAVIS, P. 1954. The Pattern of Migration in 1953 at the Irish Sea Bird Observatories. *British Birds*, **47**: 414-422.—Analyses of the spring and fall migration of 1953 at four island observatories in St. George's Channel and the Bristol Channel. Twelve species normally migrating through this region showed numerous peaks of migration with a high proportion of peaks "shared between two or more observation stations." The differences between the factors producing normal migration and drift movements are "emphasised by the large measure of dissociation between the dates of the vagrant records and those of the main movements of the regular migrants." Conditions favoring each type are discussed.—M. T. M.
- DUNNET, G. M. 1956. Common Tern, *Sterna hirundo hirundo* L., banded in Sweden and recovered in Australia. *C.S.I.R.O. Wildlife Research*, **1**: 68.—The first record of *S. h. hirundo* for the Australian continent.
- JOHNSTON, D. W. 1956. Average date of arrival of spring migrants at Macon, Georgia. *Oriole*, **21**: 27-29.
- KALMUS, H. 1956. Sun navigation of *Apis mellifica* L. in the southern hemisphere. *Journ. Exp. Biol.*, **33**: 554-565.—Honey bees from a local Brazilian stock compensated for counter-clockwise azimuth changes in sun position in orienting to foraging grounds. Inseminated queen bees of the same species imported from the northern hemisphere produced workers which systematically compensated for clockwise azimuth changes and thus oriented falsely. Hybrids also showed false orientation. The mechanism which compensates for changing sun position in orientation thus appears to be innate, and the adaptation to the southern hemisphere situation in Brazilian bees must have occurred since their importation from Europe in the 16 century.—J. T. E.
- KRAMER, G., J. G. PRATT, and U. VON ST. PAUL. 1956. Directional differences in pigeon homing. *Science*, **123** (3191): 329-330.—Pigeons released to the south of two home lofts showed a marked superiority in their ability to return to the loft when compared with pigeons released to the east, west, or north. Performances were tested for two distances: 16 to 17¼ miles and 53 to 60 mi. The same pigeons were used for a number of independent flights. Individual pigeons were released in different directions on different independent flights. This study was carried out in the Durham, N. C. region.—J. C. H.
- MARSHALL, A. J., and D. L. SERVENTY. 1956. Molt adaptation in relation to long-distance migration in petrels. *Nature*, **177** (4516): 943.—*Puffinus tenuirostris* molts in the head and body at its Tasmanian breeding grounds but not the wing and tail feathers until the bird reaches N. Pacific and Arctic waters. This post-migratory wing molt seems characteristic of trans-equatorial migrant petrels.—H. C. S.
- MATTHEWS, G. V. T. 1952. The relation of learning and memory to the orientation and homing of pigeons. *Behaviour*, **4**: 202-221.—Choice experiments showed that learning ability has no positive relation to orientation or homing ability. Pigeons could learn to go to food below, opposite or at right angles to an "artificial sun." "The learning is slow, and not very accurate, suggesting that it is not part of the birds' normal behaviour."—F. M.
- MATTHEWS, G. V. T. 1955. An investigation of the 'chronometer' factor in bird navigation. *Journ. Exp. Biol.*, **32**: 39-58.—Shearwaters and Pigeons subjected

- to artificial days of normal length but advanced or retarded by three hours tended to fly in the directions predicted on the basis of an altered internal chronometer rather than in the correct homeward direction. These results are interpreted as supporting a theory of bicoordinate sun navigation to explain homing in birds.—J. T. E.
- MITCHELL, K. D. G. 1955. Aircraft Observations of birds in flight. *British Birds*, **48**: 59–70.—Commercial flights over the United Kingdom and Western Europe, chiefly in the summer months. 89 per cent of all flying time was above 2000 ft., but only 32 per cent of all birds observed were seen above 2000 ft. Birds are encountered once every 70 hours of flying by day. Non-local birds (i.e. omitting feeding and roosting flights) showed peaks in March and October.—M. T. M.
- PRATT, J. G. 1955. An investigation of homing ability in pigeons without previous homing experience. *Journ. Exp. Biol.*, **32**: 70–83.—Pigeons with no previous experience oriented towards the home loft from distant release points as well and reached the loft as frequently as pigeons with experience in the loft vicinity. A difference in homing performance was found between two stocks. Birds released from the top of a 100 ft. tower vanished towards the home loft more quickly than pigeons released at ground level.—J. T. E.
- PRATT, J. G., and R. H. THOULESS. 1955. Homing orientation in pigeons in relation to opportunity to observe the sun before release. *Journ. Exp. Biol.*, **32**: 140–157.—To test the Matthews hypothesis that correct orientation in unfamiliar territory depends on an interval of time for observing the sun's motion along its arc, experimental pigeons were allowed to see the sun for varying lengths of time before release while others were screened until release. Both groups oriented towards the home loft with equal accuracy.—J. T. E.
- SERVENTY, D. L. 1956. First recoveries in the northern hemisphere of Tasmanian Mutton Bird, *Puffinus tenuirostris* (Temminck), banded in Australia. *C.S.I.R.O. Wildlife Research*, **1**: 72.
- SHAUB, B. M., and M. S. SHAUB. 1956. The Evening Grosbeak survey 1947–1956. *Passenger Pigeon*, **18**: 3–15.—Study of movement of Grosbeaks in eastern United States and Canada.—R. W. N.
- SPIERS, J. M. 1956. The migratory phase of Robin behaviour. *Bull. Federation of Ontario Naturalists*, **72**: 20–27.—“Except for the nesting season and the period of moult robins are truly wandering thrushes and well deserve their name.” Data from the winter of 1939–40 are presented to show the winter movements of *Turdus migratorius* in eastern North America in response to weather conditions and food supply.—F. M.
- TORDOFF, H. B., and R. M. MENGEL. 1956. Studies of birds killed in nocturnal migration. *Univ. Kansas Publ., Mus. Nat. Hist.*, **10**: 1–44.—An analysis of 1090 birds of 61 species killed near Topeka, Kansas, between September 25 and October 23, 1954. Weight, sex, age, and fat condition of all individuals were recorded, and certain species were also measured. Differential migration of sex- and age-groups is discussed and the history of theories on this subject reviewed. Other uses of material obtained from large migration accidents are discussed and the authors point out the value of data obtained from material of this sort in solving many problems which have been little studied. This paper should be studied by anyone planning to make use of birds killed in similar accidents.—R. W. S.
- WILLIAMSON, K. 1954. The Migration of the Iceland Merlin. *British Birds*,

47: 434-441.—Merlin appearing at Fair Isle in the fall are of the Icelandic race, *Falco columbarius subaesonon*. "The data support the view that clear skies and a lack of wind provide the stimulus to undertake a migratory flight, and show that journeys are made in any type of pressure-system which offers these conditions." The fall movement implies a S. E.-orientated flight.—M. T. M.

## PHYSIOLOGY

- GORDON, R. S., and I. W. SIZER. 1955. Ability of sodium sulfate to stimulate growth of the chicken. *Science*, **122** (3183): 1270-1271.
- HUTCHINSON, J. C. D. 1956. Control of seasonal variation in the egg production of hens. *Nature*, **177** (4513): 795-796.—Reduction of light from 23½ hours to 12 hours per day induced molt and inhibited egg production even though the controls kept on a 12 hour day showed no such symptoms.—H. C. S.
- IRVING, L., and J. KROG. 1956. Temperature during the development of birds in arctic nests. *Physiol. Zool.*, **29**: 195-205.—Observations on seven species of nesting birds were made at Anaktuvuk Pass, Alaska, where the air temperature was generally cool and often around freezing. About the same temperature was found during incubation as has been found in nests near Cleveland, and efficient parental care appears to maintain uniform conditions for incubation and brooding which are independent of climatic variations. The nestling stage of Fringillidae in the arctic seems to be about 1 day (out of 10) shorter than in temperate regions.—F. M.
- JOHNSON, V. L., and J. S. DUNLOP. 1955. Electrophoretic separation of hemoglobins from the chicken. *Science*, **122** (3181): 1186.
- LEVINE, J. 1955. Consensual pupillary response in birds. *Science*, **122** (3172): 690.—Unlike mammals, stimulating one eye of a bird by means of a beam of light will not produce a pupillary contraction in the eye which is not stimulated equaling that of the stimulated eye.—J. C. H.
- MARSHALL, A. J., and S. J. FOLLEY. 1956. The origin of nest-cement in edible-nest swiftlets (*Collocalia* spp.) *Proc. Zool. Soc. Lond.*, **126**: 383-389.—Examination of new material of the alimentary tract of two species of *Collocalia* seems to confirm the theory that nest-cement is produced by salivary glands. It is suggested that the seasonal development of these glands is under hormonal control.—F. M.
- RYLE, M., and M. SIMONSEN. 1956. Attempts at hybridization of chickens and turkeys which are tolerant of each others' antigens. *Nature*, **177** (4505): 437-38.
- SHIRLEY, H. V., JR., and A. V. NALBANDOV. 1956. Effects of transecting hypophyseal stalks in laying hens. *Endocrin.*, **58**: 694-700.
- WILLIAMSON, F. S. L. 1956. The molt and testis cycles of the Anna Hummingbird. *Condor*, **58**: 342-366.—For *Calypte anna* pterylography and timing of molt are presented in detail for both sexes. Males molt between June and January, and come into breeding condition rather abruptly in December before the winter solstice. The inception of the breeding condition is most closely correlated with the number of consecutive days of rainfall, but it may be modified by other factors, such as the arrival of females. Territoriality and displays are most prevalent beginning in December. Although no concerted attention was given to androgenic studies, statements are made to the effect that "functional interstitial cells are abundant" while the testes are small and not in breeding condition. Should this be true for this species, this fact is inconsistent with the findings of cyclic hormonal investigations on passerine and nonpasserine birds.—D. W. J.

## TAXONOMY AND PALAEOONTOLOGY

- BOCK, W. J. 1956. A generic review of the Family Ardeidae (Aves). Amer. Mus. Novitates No. 1779, 49 pp.—The herons are divided into two subfamilies, the Botaurinae and the Ardeinae, and the latter is divided into three tribes, the Tigrionithini, the Nycticoracini (including *Cochlearius*), and the Ardeini. Bock recognizes 64 species and 15 genera, as compared to 70 species and 32 genera in Peters' classification. The author states "I am continuing study of the relationships of the Ardeidae and have started an investigation of the comparative and functional anatomy of herons."—R. W. S.
- BRODKORB, P. 1956. Two new birds from the Miocene of Florida. Condor, 58: 367–370.—*Phalacrocorax subvolans* and *Proictinia floridana* are described.
- HORVÁTH, L., and A. KEVE. 1956. The subspecies of the Dunlin in Hungary. Ann. Hist.—Nat. Mus. Nat. Hungarici, 7, new series: 469–476. (In English, summary in Russian.)—*Calidris alpina alpina* (Linnaeus) (= *Erolia* of the A.O.U. check-list) is the most common, with *schinzi* (Brehm) next. Six specimens are referred to *centralis* Buturlin, which is separated from the nominate form on the basis of longer wing (118–122 mm.). Migration is from March to June, and July to December, with the main flights in April–May and September.
- KURODA, N. 1955. Osteological notes on the Buller's Shearwater, *Puffinus bulleri* Salvin. Annot. Zool. Jap., 28: 167–170.—The author's classification of the subgenus *Thyellodroma* as a "partial aquatic" group is confirmed by this study of *bulleri*.—R. W. S.
- KURODA, N. 1955. On the osteology of the Gadfly-Petrels, *Pterodroma*. Annot. Zool. Jap., 28: 171–177.—Based on study of skeletons of *Pterodroma inexpectata* and *P. solandri*. Kuroda concludes that this group of petrels is more closely related to the fulmars and storm petrels than to the shearwaters.—R. W. S.
- PARTRIDGE, W. H. 1954. Estudio preliminar sobre una colección de las aves de Misiones. Rev. Inst. Nac. Cienc. Nat. Zool., 3 (2): 87–153. Buenos Aires.—Study of a collection from the Territory of Misiones, northeastern Argentina, including five forms new to that country (*Leptasthenura setaria*, *Pseudasttila phoenicurus*, *Psilorhamphus guttatus*, *Pitangus sulphuratus maximiliani*, and *Cnemotriccus fuscatus fuscatus*), as well as many new to Misiones, and others little known. Taxonomic discussion as to various forms. (In Spanish, with brief English summary.)—E. E.
- PLOTNICK, R., and M. J. I. PERGOLANI DE COSTA. 1955. Clave de las familias de Passeriformes representadas en la Argentina. Rev. de Investigaciones Agrícolas, 9 (2): 65–88. Buenos Aires.—Almost the entire collection in the Museo Argentino de Ciencias Naturales of Passeriformes (over 12,500 specimens) was studied to provide a key to the families of that order represented in Argentina. It was found that the external structural characters traditionally used to separate families (tarsal envelope, length of outer primary, bill shape, etc.) were inadequate to afford any satisfactory separation of the following: a) Sylviidae, Troglodytidae, Mimidae, and Turdidae; b) Parulidae, Coerebidae, Thraupidae, and Icteridae; c) Furnariidae and Dendrocolaptidae; d) Formicariidae, Cotingidae, Tyrannidae, Pipridae, and Conopophagidae. Even in a highly artificial key limited to the Argentine species, some Tyrannidae could not be separated from Cotingidae, while others could be distinguished from Pipridae only by considering color. The nature of the tarsal envelope is the chief character traditionally used to separate families in the suborder Tyranni. (The other supposed character of importance, the structure of the syringeal muscles, has been studied in but a



- small proportion of the species, for anatomical specimens are required.) Yet the true character of the tarsal envelope is at times hard to determine, for it is subject to deformation in drying, so that what was originally one type of envelope may get to look superficially like a different type. Drawings are included of various kinds of tarsal deformations resulting from desiccation, and a method is suggested for avoiding them.—E. E.
- RAND, A. L., and R. L. FLEMING. 1956. Two new birds from Nepal. *Fieldiana. Zool.*, **39**: 1-3.—*Dendrocopos auriceps conoveri* and *Garrulax affinis bethelae*, new subspecies.
- VERHEYEN, R. 1956. Contribution à l'anatomie et à la systématique des touracos (Musophagi) et des (Cuculiformes). *Bull. Inst. Roy. Sci. Nat. Belg.*, **32**, no. 23, 28 pp.—The author believes that the resemblances between the turacos and the cuckoos are the result of convergence and that the former are related to the Galliformes and the latter to the Piciformes and Coliiformes. He divides the cuckoos into two suborders and six families.—R. W. S.
- VON SNEIDERN, K. 1954. Notas sobre algunas aves del Museo de Historia Natural de la Universidad del Cauca, Popayan, Colombia. *Noved. Colombianas*, no. **1**: 3-13. Univ. del Cauca, Popayan.—Notes on certain birds in the museum mentioned in the title. Many involve range extensions into southwestern Colombia, or are rare or unusual in color.—E. E.
- WETMORE, A. 1956. Footprint of a bird from the Miocene of Louisiana. *Condor*, **58**: 389-390.
- WETMORE, A., and W. H. PHELPS, JR. 1956. Further additions to the list of birds of Venezuela. *Proc. Biol. Soc. Washington*, **69**: 1-10.—*Amazilia distans*, *Philydor hylobius*, and *Grallaria chihonia*, new species. *Crypturellus noctivagus cursitans*, *Chaetura vauxi aphanes*, *Acrochordopus zeledoni bunites*, *Hylophilus aurantiifrons helvinus*, and *Hylophilus flavipes galbanus*, new subspecies. *Hemispingus m. melanotis* recorded from Táchira.—R. W. S.

#### NOTES AND NEWS

The Ecological Society of America has formed a Section of Animal Behavior and Sociobiology. Three major problems in the field of behavior studies—publications, terminology, and teaching—are being investigated. Further information on the Section may be obtained by writing the secretary, Dr. Martin W. Schein, Department of Poultry Husbandry, Pennsylvania State University, University Park, Pennsylvania.

The Frank M. Chapman Fund, established to provide financial assistance to young scientists conducting research in ornithology, makes awards annually in April. Applications should be received before March 31. All correspondence should be directed to the Chairman, Chapman Memorial Fund Committee, Department of Birds, The American Museum of Natural History, Central Park West at 79th Street, New York 24, N. Y.

The first Pan-African Ornithological Congress will be held at Livingstone, Northern Rhodesia (6 miles from Victoria Falls) from July 15 to 20, 1957. Further information may be obtained from the Hon. Secretary of the South African Ornithological Society, P. O. Box 1616, Cape Town.